

## EXECUTIVE SUMMARY

American Cyanamid Company is located at 1306 McKinley Avenue in Joliet, Illinois. They generate sulfuric acid and liquid and dry alum (aluminum sulfate). Vanadium pentoxide was once generated as a waste catalyst; the process has been eliminated from the plant. A manifest file search was done to locate the reclaimer, but the files showed no information and/or generator number for the transport of vanadium pentoxide to any reclaimer.

Numerous investigations were conducted at this facility, and sulfur dioxide emissions were found to be very high. These emissions exceeded the allowable limits by three thousand parts per million (3000 ppm). Residents complained about personal health problems, difficulty in breathing, tightness of the chest and irritation of the eyes and nose (from the emission of fumes from the plant). Also, traces of aluminum sulfate were found in the tributary (Sugar Creek) adjacent to the plant and flowing into the Des Plaines River. Although aluminum sulfate is not a listed hazardous waste, when exposed to water it can generate a hazardous waste. The storage method for the alum-sludge are the on-site lagoons. A three hundred and sixty thousand gallon (360,000 gal.) spill from the lagoon of alum-sludge flowed into the tributary (Sugar Creek). To knowledge, no immediate population is using surface water. There is the threat of groundwater contamination due to the soil contamination from the alum-sludge that was spread on the facility grounds. Citizens along the tributary (Sugar Creek) complained about a white (milky in color) water flowing into the creek causing it to flood, or rains causing flooding, and from this a white substance drying on or in their property and killing the vegetation along its path of flow.

A high priority has been given to this site because of the large population dependent upon ground water and a municipal well within two (2) miles of the site. There are over one hundred and nine thousand (>109,000) residents exposed to air contamination. It is recommended that soil and stream sediment samples should be taken and continued air surveillance (for SO<sub>2</sub> and fugitive dust). Also, groundwater monitoring devices<sup>2</sup> should be installed.

KP:tk/19

EPA Region 5 Records Ctr.



288878

930289



L19780903

POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 1 - SITE INFORMATION AND ASSESSMENT

## I. IDENTIFICATION

01 STATE 02 SITE NUMBER

IL 000675264

## J. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)

American Cyanamid Company

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER

1306 McKinley Avenue

03 CITY

Joliet

04 STATE

05 ZIP CODE

06 COUNTY

IL

60436

Will

07 COUNTY CODE

197

08 CONG DIST

17

09 COORDINATES LATITUDE

41 22 28.0

LONGITUDE

088 06 18.0

Elwood (58A)

10 DIRECTIONS TO SITE (Starting from nearest public road)

SEE Attached Map

## M. RESPONSIBLE PARTIES

01 OWNER (If known)

American Cyanamid Company

02 STREET (Business, mailing, residential)

Berdan Avenue

03 CITY

Wayne

04 STATE

05 ZIP CODE

06 TELEPHONE NUMBER

NJ

07470

'201' 831-2000

07 OPERATOR (If known and different from owner)

Same

08 STREET (Business, mailing, residential)

09 CITY

10 STATE

11 ZIP CODE

12 TELEPHONE NUMBER

( )

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL:

(Agency name)

☐ C. STATE☐ D. COUNTY☐ E. MUNICIPAL☐ F. OTHER:

(Specify)

☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED:

MONTH DAY YEAR

☐ B. UNCONTROLLED WASTE SITE (RCRA 193 a) DATE RECEIVED:

MONTH DAY YEAR

☐ C. NONE

## IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

☒ YES

DATE 09/10/80

☐ NO

MONTH DAY YEAR

09-01-81

BY (Check all that apply)

☐ A. EPA☐ B. EPA CONTRACTOR☒ C. STATE☐ D. OTHER CONTRACTOR☐ E. LOCAL HEALTH OFFICIAL☐ F. OTHER:

(Specify)

CONTRACTOR NAME(S):

02 SITE STATUS (Check one)

☒ A. ACTIVE☐ B. INACTIVE☐ C. UNKNOWN

03 YEARS OF OPERATION

1922

Present

BEGINNING YEAR

ENDING YEAR

☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Sludge (Toxic, Persistent)

Acids and Heavy Metals (soluble)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Ground Water (population/environment); Vapor Release (population/environment)  
Surface Water (environment)

## V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☒ A. HIGH

(Inspection required promptly)

☐ B. MEDIUM

(Inspection required)

☐ C. LOW

(Inspect on time available basis)

☐ D. NONE

(No further action needed, complete current disposition form)

## VI. INFORMATION AVAILABLE FROM

01 CONTACT

William J. Burns

02 OF (Agency/Organization)

American Cyanamid

03 TELEPHONE NUMBER

'815' 722-6671

04 PERSON RESPONSIBLE FOR ASSESSMENT

Kenneth Page

05 AGENCY

IEPA

06 ORGANIZATION

HSCS

07 TELEPHONE NUMBER

'217' 7826760

08 DATE

3/11/85



I HIGHLY VOLATILE  
J EXPLOSIVE  
K REACTIVE  
L INCOMPATIBLE  
M NOT APPLICABLE



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

D1 STATE D2 SITE NUMBER  
IL0 000675264

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 <input checked="" type="checkbox"/> A GROUNDWATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED <u>81,266</u>	02 <input type="checkbox"/> OBSERVED (DATE _____) <input checked="" type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION Known use of vanadium pentoxide and aluminum sulfate and possible on-site contamination, it's conceivable, since both are water soluble that contamination of the soil and with rains can and will lead to ground water contamination.
01 <input checked="" type="checkbox"/> B SURFACE WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED <u>N/A</u>	02 <input checked="" type="checkbox"/> OBSERVED (DATE <u>04-13-83</u> ) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION due to the overflow of the waste retention lagoons, chemicals (alum-like sludge) flowed into a tributary (sugar creek) which empties into the Des Plaines River. [see attachment #3]
01 <input checked="" type="checkbox"/> C CONTAMINATION OF AIR 03 POPULATION POTENTIALLY AFFECTED <u>109,931</u>	02 <input checked="" type="checkbox"/> OBSERVED (DATE <u>11-09-75</u> ) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION Sulfur dioxide emissions were recorded to be very high >4500 ppm. Complaints were received from local citizens about personal health problems (due to fumes from the facility) [see attachment #1]
01 <input type="checkbox"/> D FIRE/EXPLOSIVE CONDITIONS 03 POPULATION POTENTIALLY AFFECTED _____	02 <input type="checkbox"/> OBSERVED (DATE _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
01 <input type="checkbox"/> E DIRECT CONTACT 03 POPULATION POTENTIALLY AFFECTED _____	02 <input type="checkbox"/> OBSERVED (DATE _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
01 <input checked="" type="checkbox"/> F CONTAMINATION OF SOIL 03 AREA POTENTIALLY AFFECTED _____	02 <input checked="" type="checkbox"/> OBSERVED (DATE <u>08-23-81</u> ) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION alum-like sludge was observed being spread over an area of the plants property. Run-off from the alum-piles were reaching the tributary (sugar creek) [see attachment #5]
01 <input type="checkbox"/> G DRINKING WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED _____	02 <input type="checkbox"/> OBSERVED (DATE _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
01 <input type="checkbox"/> H WORKER EXPOSURE/INJURY 03 WORKERS POTENTIALLY AFFECTED _____	02 <input type="checkbox"/> OBSERVED (DATE _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
01 <input type="checkbox"/> I POPULATION EXPOSURE/INJURY 03 POPULATION POTENTIALLY AFFECTED _____	02 <input type="checkbox"/> OBSERVED (DATE _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
ILD 000673264

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA  
04 NARRATIVE DESCRIPTION

02 ☒ OBSERVED (DATE 07-21-78)

☐ POTENTIAL

☐ ALLEGED

Within 3/4 mile of the facility, there was vegetation damage, trees and other vegetation turned brown, possibly from SO<sub>2</sub> emissions or Run-offs from the alum-like sludge. [See attachment #2]

01 ☐ K. DAMAGE TO FAUNA

04 NARRATIVE DESCRIPTION (include names of species)

02 ☐ OBSERVED (DATE \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES

(Spills, runoff, standing liquids, leaking drums)

03 POPULATION POTENTIALLY AFFECTED \_\_\_\_\_

02 ☐ OBSERVED (DATE \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☒ N. DAMAGE TO OFFSITE PROPERTY  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE \_\_\_\_\_)

☐ POTENTIAL

☒ ALLEGED

area. Residents complained about a white substance drying on their lawns and in their basements after a flooding of the Sugar Creek tributary [SEE ATTACHMENT #6]

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 109,931

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

I.E.P.A Division Files: Land, Water and Air



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DUE TO  
PII

ENVIRONMENTAL PROTECTION AGENCY STATE OF ILLINOIS

L P C F C O 5 5 C  
(1) (8) (9)

OBSERVATION REPORT - SITE INVENTORY NO. 19780903

(11) (18)

Will

CO. - L.P.C.

Region # N

Date 02/05/81

(20) (25)

Joliet

(Location)

American Cyanamid

(Responsible Party)

Letter Sent (Yes or No) N

(26)

Samples Taken: Yes ( ) No ☒

Time: From 9:30 AM

Weather 15° Sunny

Ground Water( ) Surface( ) Other( )

To 10:45 AM

Photos Taken: Yes ( ) No ☒

Interviewed E.P. Stewart

Inspector B P B

(27) (29)

Previous Inspection —

Previous Correspondence —

Site Open: Yes ☒ No ( )

OPERATIONAL STATUS:

TYPE OF OPERATION:

AUTHORIZATION:

Operating ☒

Landfill ( )

Storage ☒

E.P.A. Permit ( )

Temporarily Closed ( )

Random Dump ( )

Salvage ( )

Variance ( )

Closed Not Covered ( )

Other ( )

A.C.D. ( )

21(e) ( )

Closed and Covered ( )

Quantity Received Daily(1-6) 1

(30)

Board Order ( )

Illegal (5) ☒ 5

(31)

IMPROVED

RECEIVED

LPC 4 1/79 5,000

SAME

MAR 05 1981

DETERIORATED

E.P.A. - D.L.P.C.

I S or D S

(62)

STATE OF ILLINOIS

GENERAL REMARKS: American Cyanamid has recently terminated a process that generated the spent catalyst, Vanadium pentoxide (P120). This catalyst is a solid, in pellet form, they are storing the waste in fiber containers, located in a warehouse in the facility. They plan to transport the material to a reclaimer within 3-4 months. I informed Mr. Stewart to contact Springfield, when plans are finalized for removal, to receive manifests forms, a generator number

INTERVIEW: and authorization for the move. When this waste is gone, Amer. Cyanamid will no longer be generating HAZ. waste. American Cyanamid appears to be in compliance with all necessary RCRA interim status standards for the temporary storage of their HAZ. waste.

DIAGRAM:

